

# SEPA CHECKLIST FOR DAVIS BRIDGE #232 REPLACEMENT

### A. Background

#### 1. Name of proposed project, if applicable:

Davis Bridge #232 Replacement

## 2. Name of applicant:

Clark County Public Works

### 3. Address and phone number of applicant and contact person:

Clark County Public Works ATTN: Jennifer Taylor PO Box 9810 Vancouver, WA 98666

jennifer.taylor@clark.wa.gov Phone: (564) 397-4227

### 4. Date checklist prepared:

June 5, 2020

### 5. Agency requesting checklist:

Clark County Public Works

### 6. Proposed timing or schedule (including phasing, if applicable):

The project is scheduled for summer 2021. No construction phasing is proposed.

# 7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

There are no plans for future additions, expansion, or further activity related to or connected with this proposal.

# 8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

- Habitat Evaluation Report (AECOM 2020a)
- Wetland Delineation Report (AECOM 2020b)
- No Effect Letter (AECOM 2020c)
- Geotechnical Investigation and Report (Clark County, in prep)
- Hydraulic and Geomorphic Basis of Design Memo (AECOM 2020d)
- Cultural Resources Assessment Report (AECOM 2020e)
- Bank Use Plan (AECOM 2020f)
- Joint Aquatic Resources Permit Application (AECOM 2020g)
- Hydraulic Project Approval Application (to be submitted via WDFW online service)

# 9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

There are no known pending approvals or other proposals that will directly affect this project.

# 10. List any government approvals or permits that will be needed for your proposal, if known.

#### **Federal**

• Section 404 Nationwide Permit #14 (US Army Corps of Engineers)

#### State

- Section 401 Water Quality Certification (Washington State Department of Ecology [Ecology])
- National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit (Ecology)
- Hydraulic Project Approval (Washington Department of Fish and Wildlife [WDFW])
- Section 106 Cultural and Historic Resources Documentation (Department of Archaeology and Historic Preservation [DAHP])

#### Clark County

- State Environmental Policy Act (SEPA) Checklist
- Floodplain Review
- County Habitat Conservation Area Ordinance
- County Wetland Protection Ordinance

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Clark County is proposing to replace Davis Bridge #232, which is located on Northeast Davis Road near Brush Prairie, Washington. The bridge spans Fifth Plain Creek, a tributary to Lacamas Creek, the Washougal River, and the Columbia River. The bridge is a single-span, concrete girder bridge that was originally built in 1935 and partially rebuilt in 1953. The bridge has been classified as "scour critical" for over 20 years, and a recent evaluation determined that bridge replacement would be the best option. The new bridge will be widened and raised from its original alignment to meet current roadway and hydraulic requirements. Due to the widening, the bridge approaches (roadway connections) will also be widened near the bridge and will taper back to the current road width within 150 feet of the bridge on both sides.

The flow path of Fifth Plain Creek is currently skewed relative to the bridge. This results in flows being directed toward the western bridge abutment. At this location, the bed of the creek is below the abutment footing, resulting in scour. Fifth Plain Creek appears to have incised up to 2 feet at this location; the abutment footings were likely originally below the historical creek channel elevation, but channel incision has exposed them.

The bridge currently has an 18-foot-wide span over Fifth Plain Creek. Under current conditions, the freeboard (height between water surface and the bottom of the bridge) during the 100-year flow event is approximately 0.4 foot. Current standards suggest a minimum 3 feet of freeboard to allow floating material, such as woody debris, to pass safely under the structure without getting snagged. To increase the freeboard and allow for reduced channel confinement, the bridge span opening will be expanded from 18 feet to 28 feet, which will lower the 100-year flood surface elevation relative to the proposed bridge deck.

While the bridge will be sized to span the creek and provide some setback from the ordinary high-water line (OHWL), the project will require a temporary stream diversion system to accommodate in-channel excavation and other bridge work. Contractors will be given the option of piping the creek through the work area (under the bridge) or trenching through the road 35 feet west of the bridge and diverting the creek around the work area in a buried pipe. The latter diversion option represents the maximum potential for impacts to aquatic resources associated with stream diversion and is, therefore, the basis for estimating resource impact dimensions related to the stream diversion. Similarly, temporary dam construction has been left unspecific so that the contractor has flexibility in design; however, a standard sandbag and plastic sheeting wrap dam was used for purposes of estimating the in-water work dimensions. Flows will be directed into the diversion pipe, which will be sized based on flow specified per Washington State Department of Transportation (WSDOT) diversion pipe sizing standards.

The project site is well upstream of a complete fish passage barrier for anadromous salmonids. The stream is known to support resident cutthroat trout (*Oncorhynchus clarkii*; federal species of concern). The project has been designed to reduce riparian and water quality impacts and to

provide enhanced stream channel migration area beneath the new bridge. Road widening will affect aquatic and habitat resources along the north side of Davis Road. Streambanks and any temporarily disturbed areas will be restored following bridge replacement and seeded with a native erosion control seed mix. Credits from a local mitigation bank will be purchased for impacted wetlands that cannot be mitigated onsite.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Davis Bridge #232 is located next to 19571 Northeast Davis Road, 0.6 mile east of Ward Road, Mile Post 0.64 (see Figure 1, Location Map). The legal description is Township 3N, Range 3E, Section 32 (SW 1/4). The bridge spans Fifth Plain Creek in the Lacamas Watershed, in Clark County, Washington.

#### **B.** Environmental Elements

#### 1. Earth

a.	General	descri	iption (	of t	he site:	
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Fifth Plain Creek bed, banks, and adjacent terrace that contains flat to rolling topography.

Fifth Plain Creek bed, banks, and adjacent terrace that contains flat to rolling topography. Slope of Northeast Davis Road at the Davis Bridge crossing is nearly level.

# b. What is the steepest slope on the site (approximate percent slope)?

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other

Portions of the incised Fifth Plain Creek banks have slopes up to 100 percent (90 degrees), but elsewhere the terraces beyond the creek have slopes from 0 to 20 percent. Steeper slopes are generally those sloping down to the creek from the west.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Table 1 summarizes soils mapped within the project area.

Table 1. Project Area Soils

USGS Soil Name	USGS Farmland	% of Study
	Classification	Area
HcB- Hessen clay loam, 0- 8% slopes	Prime farmland	9
HcD- Hessen clay loam, 8- 20% slopes	Farmland of statewide importance	12
HuB- Hockinson loam, moderately well drained, 0-8% slopes	Prime farmland if drained	30
McB- McBee silt loam, 0- 5% slopes	Prime farmland if drained	49

<sup>\*</sup>Soil percentage based on wetland delineation study area.

None of the mapped soils within the study area contain hydric components. Small-scale pasture/farmland soils are proposed for removal but would not have long-term commercial significance.

# d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

A migrating channel meander is undercutting a terrace of grass land upstream of the bridge. Downstream banks are largely stable. Other soils beyond the streambanks are vegetated and stable.

# e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

The project will result in approximately 0.96 acre of total ground disturbance from road widening and bridge replacement and associated construction activities (ingress/egress, ditch rerouting, etc.). Of this area, approximately 0.20 acre of ground disturbance will occur within wetlands and/or waters and is described in Item B.3.a.3.

The remaining approximately 0.76 acre of impact will occur within uplands at the site. The bridge approaches (roadway) will be widened from 11 feet existing road lane width to 20 feet proposed lane width over the bridge, which will require excavation of the existing road surface (~440 cubic yards [CY]) and placement of common borrow material to accommodate the new expanded bridge width and Northeast Davis Road embankment and guardrail (~760 CY). Approximately 0.4 acre within the project area will be cleared and grubbed to accommodate the road widening (323 CY; assuming a disturbance depth of 6 inches). Fill for the road widening will be common borrow material sourced from a local borrow pit. Imported topsoil (170 CY) will be placed in the rerouted seasonal stream and adjacent terrace to accommodate post-construction plantings. The bridge span will consist of a pre-poured concrete slab.

New bridge foundations will be installed in the Fifth Plain Creek floodplain but outside of the

OHWL of the creek. The bridge foundations comprise two concrete piers (approximately 10 feet tall, 2.5 feet wide, and 50 feet long; 93 CY total) each supported by six drilled micropiles and concrete wingwalls (volumes vary). See Attachment A, 60% Design Plan Set (Sheets 12–20), for bridge plans and details (Note: the plan set has been reduced to contain only sheets relevant to this SEPA checklist). The annular space behind each pier will be temporarily backfilled with clean sand during construction (~56 CY). All fill for bridge foundations will be imported from local commercial vendors.

Following construction, the new bridge approaches and driveway apron will be topped with crushed surfacing (~226 CY, assuming 12 inch depth) and paved with asphalt to tie into the existing road. Approximately 0.42 acre of ground surface disturbed by construction activities will be graded (as needed) to match pre-construction contours and seeded and/or planted with native species to minimize erosion.

#### f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

There is potential for erosion to occur during construction. The project will involve the removal of the existing bridge structure and adjacent roadway material. Streambanks near the bridge will be graded to accommodate the wider channel. A new roadside seasonal stream channel will be re-routed (excavated) along the northern edge of the new, expanded gravel embankment (road prism). Equipment will work from the roadway to the extent practicable. Work is being timed to occur during relatively dry summer conditions when the roadside stream will be dry and flow will be low in Fifth Plain Creek. However, summer rain events can increase surface flows over soils disturbed by grading activity. Erosion control measures will be placed around work areas to prevent sedimentation of the creek. See list below (under h).

# g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The existing Northeast Davis Road and bridge site currently contain approximately 0.24 acre of impervious surfaces. Widening the road will add approximately 0.10 acre of impervious surface (42 percent increase in impervious surface). No new buildings or other structures are proposed.

### h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Measures to reduce or control erosion, or other impacts to earth, will be implemented during the construction process at the site in accordance with the NPDES Construction Stormwater Permit, the Washington State Department of Ecology's 2019 NPDES General Stormwater Permit for Clark County, and Clark County's Stormwater Code. Best management practices (BMPs) may include the following:

• High visibility construction silt fence will be installed prior to construction at the

downslope end of work areas to prevent equipment and erosion from entering waters, wetlands, and wetland buffers. Erosion control measures will be maintained until construction is complete.

- Work limits will be clearly marked to establish boundaries associated with site access and construction.
- Work will be performed from the paved roadway to the extent practicable, rather than from within adjacent wetland areas.
- Erosion control will include placement of temporary check dams at the base of new road embankment.
- Work in Fifth Plain Creek will be conducted in the dry, to the extent practicable, after flow is diverted around the job site.
- In-stream work will be constrained to the U.S. Army Corps of Engineers work window for Fifth Plain Creek (July 1 through September 30) unless authorization is granted otherwise. This mitigation measure is required to meet other regulatory agency requirements. WDFW has issued timing guidelines for Lacamas Creek and its tributaries (upstream of the dam) that are more restrictive (8/1 to 9/30) to protect areas that support cutthroat trout spawning and incubation. Although the project site may support cutthroat spawning, the in-water portion of the project cannot be completed within this shortened timeframe. Thus, agency negotiations may be needed during the Hydraulic Project Approval review process so that the project can be completed while ensuring that sensitive species and habitats are adequately protected.
- Disturbed and/or stockpiled soils that are exposed to surface water runoff will be stabilized
  as needed to protect against erosion. Measures to minimize erosion and sedimentation
  include but are not limited to weed-free straw, mulch, erosion control blankets, and plastic
  sheeting.
- Staging areas (used for equipment storage, vehicle storage, fueling, servicing, etc.) will be established in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.
- Equipment will be inspected daily for leaks. Any required repairs will be conducted in an upland location before using the equipment in or near the water.
- All equipment and gear will be thoroughly cleaned before arriving and leaving the job site to prevent the transport and introduction of invasive species.
- Native vegetation removal will be limited to the extent practicable. All areas of vegetation removal or temporary soil disturbance in wetlands and wetland buffer areas will be graded to restore preconstruction contours and will be seeded with a native seed mix.
- Project effects on wetland habitat will be minimized by landscaping the road edge within
  the ROW using native shrubs. Native trees cannot be planted due to sight distance issues
  stemming from a road curve to the east; however, native shrubs will be planted to provide

habitat, shade, and a buffer from road traffic along the north end to the widened roadway.

• Contractors may implement additional BMPs as indicated in the Clark County Stormwater Manual (Clark County 2015).

#### 2. *Air*

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

During construction, temporary emissions to the air will result from construction equipment exhaust, dust, and odor emission.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no known off-site sources of emissions or odor that may affect the proposed project.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Standard construction BMPs will be implemented for the project to reduce and control emissions to air during construction. BMPs may include but are not limited to minimize idling of construction equipment/vehicles, spraying exposed soils with water to keep the surface damp to minimize dust, and covering soils stockpiled on-site.

- 3. Water
- a. Surface Water:
- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Figure 2, Existing Conditions Map, depicts surface water features in the project area. Wetlands and waters are described below.

#### Wetlands

The wetland delineation documented five wetlands (Wetlands A through E) in the project vicinity (Table 2). Detailed wetland descriptions are available in the Wetland Delineation Report (AECOM 2020b).

#### Table 2. Wetlands

Name	Size (acres)	Cowardin Classification*	HGM Classification	Category
Wetland A	0.145	PEMC	Slope	III
Wetland B	0.007	PEMC	Riverine	III
Wetland C	0.137	PSSC	Depressional	III
Wetland D	0.006	PEMC	Depressional	III
Wetland E	0.040	PEMF	Depressional	II

<sup>\*</sup>Cowardin Classifications: PEMC – Palustrine Emergent, Seasonally flooded; PSSC – Palustrine Scrub-Shrub, Seasonally flooded; PEMF – Palustrine Emergent, Semipermanently flooded

### Waters

Fifth Plain Creek runs through the site. Fifth Plain Creek merges with Shanghai Creek, then flows into Lacamas Creek (through Lacamas Lake) and the lower Washougal River, which joins the Columbia River. The creek averages approximately 10 to 20 feet wide at the OHWL and contains a cobble/gravel substrate. Banks are relatively incised. The creek is classified as a Type F (fish-bearing, perennial) stream under the Washington Department of Natural Resources (DNR) water typing classification system. Clark County assigns Type F streams a Riparian Priority Habitat buffer of 200 feet (Figure 3, Riparian Habitat Impact Map).

A roadside seasonal creek ("Unnamed Creek") conveys water along the north side of Northeast Davis Road and discharges to Fifth Plain Creek. The channel is approximately 1 to 2 feet wide. Because Unnamed Creek discharges through an elevated culvert several feet above Fifth Plain Creek, it is assumed to be a Type Ns (non-fish seasonal) stream. Unnamed Creek has a 75-foot riparian buffer.

# 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Attachment A, 60% Design Plan Set (Sheets 12–20), depicts the construction plan, details, and proposed erosion and sediment control measures. Work in and near wetlands and waters is described below.

#### Wetlands

Bridge replacement activities will result in unavoidable wetland impacts. Wetlands A and C, which abut the north side of Northeast Davis Road, will be permanently impacted by placement of common borrow material sourced from a local borrow pit to accommodate the new expanded bridge width and Northeast Davis Road embankment and guardrail. Wetland D will be permanently impacted by placement of common borrow material for the Northeast Davis Road embankment and for maintaining the connection of an adjacent residential driveway.

Just beyond the new road embankment, Wetland A soil will be excavated to re-route an existing roadside channel (Unnamed Creek, described below) to allow it to continue to flow into Fifth Plain Creek. Construction activities will also result in temporary disturbance in Wetland A.

Fifth Plain Creek may be temporarily routed through Wetland C. In this scenario, the wetland would be temporarily disturbed by excavating a 4-foot-wide by 5-foot-deep trench, installing a temporary stream diversion pipe, and backfilling. The diversion pipe, if used, would be installed with trench dams and/or anti-seep collars to avoid creating a preferential pathway for groundwater. Excess soil would be stockpiled within proposed permanent wetland impact areas and covered until the diversion is removed and the area is restored.

#### Waters

To facilitate bridge deconstruction and reconstruction activities, Fifth Plain Creek will be temporarily diverted from its existing channel to dewater the work zone. To isolate the work zone, temporary dams will be constructed above and below the proposed bridge deck area in Fifth Plain Creek. Dam construction has been left unspecific so that the contractor has flexibility in design; however, a standard sandbag and plastic wrap dam was used for purposes of estimating the excavation and fill in-water work dimensions. If other materials are chosen, they will not exceed these impact dimensions.

The isolated, dewatered stream bed will be excavated to a depth of approximately 3 to 3.5 feet, and a 2-foot subsurface layer of 8-inch-diameter angular cobble will be placed within the channel to create a scour protection zone beneath the restored streambed. This layer will ramp up against the bridge abutments to form streambanks and to armor the bridge against scour during future flood events. The scour rock layer will also prevent channel incision or the upward migration of downstream headcuts. The subsurface scour layer will be covered with up to 1.5 feet of fish-friendly alluvial (rounded) coarse gravel (not crushed/angular gravel) to fine cobble and graded to match current streambed elevations to tie in with upstream and downstream channel elevations. Fine cobble and rounded gravels will match the size distributions noted in the stream pebble counts, which are listed in the Hydraulic and Geomorphic Basis of Design Memo (AECOM 2020d). Stream gravels will be sourced from a local commercial quarry.

Widening the road prism will require re-routing the roadside Unnamed Creek along the north edge of Northeast Davis Road. The existing culvert at the northeast corner of the bridge will be permanently removed. The culvert is currently perched above the creek's OHWL and lacks a surface water connection to the creek. Re-routing the channel will allow the creek to provide off-channel flood refuge during high-flow events. The existing channel will be filled, and the new roadside Unnamed Creek will be excavated along the northern edge of the new road prism, using an excavator working from Northeast Davis Road and the adjacent land to the north. The excavated silt loam topsoil and alluvial cobbles will be placed into a dump truck staged on Northeast Davis Road and disposed of at an approved upland disposal site. The west end of the new channel will be graded down so that it has a direct surface water connection to the Fifth Plain Creek channel. Near its confluence with Fifth Plain Creek, the new Unnamed Creek will be armored with streambed cobbles to disperse flow entering the stream and avoid bank erosion. Temporary, biodegradable check dams will also be installed in the Unnamed Creek for flow velocity/erosion control.

# 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Figure 4, Impact Map, depicts anticipated impacts to wetlands and waters at the project site. Figure 5, Cross Sections, depicts existing and proposed site elevations. Impact totals are summarized in Table 3 and described below.

Table 3. Wetland and Waters Impacts

Name	Permanent	Permanent	Permanent	Temporary	Permanent	Temporary
	Impact	Removal	Fill	Disturbance	Wetland	Wetland
	(acres)	(CY)	(CY)	(acres)	Buffer	Buffer
					Impact	Impact
					(acre)	(acre)
Wetland A	0.023	17.2	25.5	0.030	0.05	0.02
Wetland C	0.020		91.8	0.036	0.05	0.05
Wetland D	0.001		0.4	0.003	0.03	0.02
Wetland E					0.09	0.10
Fifth Plain				0.05		
Creek						
Unnamed	0.040	51.3	51.3			
Creek						
TOTAL	0.044	17.2	117.7	0.069	0.22	0.19
(wetland)						
TOTAL	0.040	51.3	51.3	0.05		
(waters)						

Approximately 169 CY of fill (sourced from a local borrow pit and/or commercial quarry) will be permanently placed in wetlands and waters at the project site.

Approximately 68.5 CY of material will be permanently excavated from wetlands and waters at the project site.

Approximately 0.07 acre of wetland and 0.5 acre of non-wetland waters will be temporarily disturbed by construction activities (e.g., ingress/egress, work zone improvements, streambed grading, temporary dam placement) and from trenching to divert Fifth Plain Creek around the work area (should that construction scenario be selected). However, ground surface contours will be restored to pre-construction conditions, and areas of temporary soil disturbance will be seeded with a native seed mix.

Permanent wetland buffer impacts will total 0.22 acre from approximately 94 CY of excavation and 760 CY of fill placed to widen the road prism. Approximately 0.20 acre of wetland buffer will be temporarily impacted to provide access for construction. Temporary buffer impacts will be restored following construction.

# 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

The proposed project will require a temporary surface water diversion to create a work zone for construction. Contractors will be given the option of piping Fifth Plain Creek through the current channel (under the bridge) or around the work area (in a buried pipe). Pipe size will be determined based on flows specified per WSDOT diversion pipe sizing standards. If temporary diversion around the bridge is selected, approximately 23.3 CY of Wetland C would be temporarily disturbed by excavating a trench, installing a stream diversion pipe, and backfilling. After construction, once the stream is restored to its channel, the portion of the pipe within the wetland would be removed and the trench backfilled using stockpiled soils. The portion of pipe crossing the road would be grouted and abandoned in place after stream is restored to its channel.

### 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

Yes- Zone AE (Base Flood Elevations determined). Base Flood Elevations in the immediate vicinity range from 288 to 295 feet.

FEMA has designated reaches of Fifth Plain Creek as both Floodplain and Floodway. Figure 6, FEMA Floodplain and Floodway Mapping, illustrates the delineation of the two spatial extents in the vicinity of the Davis Road bridge. FEMA defines "Floodplain" as any land area susceptible to being inundated by floodwaters from any source. Areas delineated on FEMA Floodplain maps are considered Special Flood Hazard Areas (SFHAs). An SFHA is defined as the area that will be inundated by a flood event having a 1 percent chance of being equaled or exceeded in any given year. The 1 percent annual chance flood is also referred to as the base flood or 100-year flood.

The term "Regulatory Floodway" describes the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations. Projects within a Floodway must demonstrate the proposed project meets the Zero-Rise requirement. This means the project cannot cause the water surface elevation to increase.

For streams and other watercourses where FEMA has provided Base Flood Elevations, but no floodway has been designated, the community must review floodplain development on a case-by-case basis to ensure that increases in water surface elevations do not occur, or identify the need to adopt a floodway if adequate information is available.

To address the concerns of the FEMA regulatory designation, a detailed hydraulic analysis was prepared to assess the potential impact of the David Road bridge replacement on the adjacent Floodplain and Floodway. The results of this analysis are presented in the Davis Road Bridge Hydraulic and Geomorphic Basis of Design Technical Memorandum (AECOM

2020d).

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No. There will be no discharge of waste materials into surface waters. All erosion and sediment control BMPs will be in place prior to construction and will be maintained until construction is complete.

#### **b.** Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

There will be no groundwater withdrawals from a well or discharges to groundwater for any purpose of this project. Groundwater within the isolated construction area will be pumped to a dewatering basin before returning to Fifth Plain Creek.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

There will be no discharge of waste materials into the ground from any source. See BMP list for Item B.1.h.

- c. Water runoff (including stormwater):
- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Stormwater runoff from Northeast Davis Road is currently collected and conveyed via roadside ditches that discharge to Fifth Plain Creek. Existing ditches will be re-routed following road widening to run along the toe of the new road prism. New drainage channels will be designed to accommodate surface roadway runoff; however, the source of runoff, method of collection, and receiving waterbody (Fifth Plain Creek) will remain the same as existing conditions. See Attachment A, 60% Design Plan Set, Sheets 5–9, for Stormwater Pollution Prevention Plan and Details.

#### 2) Could waste materials enter ground or surface waters? If so, generally describe.

No waste materials will enter ground or surface waters. Construction is scheduled to take place during the summer dry season, and Fifth Plain Creek will be temporarily diverted around the bridge replacement location, so construction will take place in the dry. Any inadvertent debris that falls into the channel during bridge replacement will be removed prior to the removal of the stream diversion. In the event demolition activities occur prior to stream diversion and dewatering, containment BMPs (e.g., covers, platforms) would be implemented to prevent debris from entering the waterway. Containment BMPs would be inspected regularly and debris removed and disposed of at an approved disposal site.

BMPs complying with Clark County's Stormwater Code will be implemented prior to construction and will be maintained until construction is complete. See list for Item B.1.h.

# 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

An existing roadside seasonal stream (Unnamed Creek) will be re-routed to flow along the base of the expanded road prism. Temporary, biodegradable check dams will be installed in the new channel for flow velocity/erosion control; however, this improvement will not alter or otherwise affect existing drainage patterns in the vicinity of the site.

# d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

See list for Item B.1.h.

#### 4. Plants

### a. Check the types of vegetation found on the site:

_X_	deciduous tree: alder, black cottonwood, Oregon ash, other
_X_	evergreen tree: western red cedar
_X_	_shrubs: English hawthorn, Himalayan blackberry
_X_	grass: reed canarygrass, bentgrass, velvetgrass
	_pasture
	_crop or grain
	Orchards, vineyards or other permanent crops.
_X_	_wet soil plants: soft rush, wetland grasses, other
	_water plants: water lily, eelgrass, milfoil, other
	other types of vegetation

#### b. What kind and amount of vegetation will be removed or altered?

Approximately 0.4 acre of clearing and grubbing is estimated for access and widening of the bridge and road approaches. The majority of this widening would occur along the existing roadside. Up to 31 trees and shrubs may need to be removed to accommodate required bridge/road widening and stream diversion activities. This includes clearing along streambanks near the bridge and roadside areas to allow construction access. Bank vegetation consists predominantly of non-native invasive species (e.g., Himalayan blackberry, English ivy, reed canarygrass). Note that tree clearing includes removal of several *Arbor vitae* planted in County ROW without permission by an adjacent property owner. The stream diversion may require removal or root damage to two trees; however, the contractor will be directed to avoid tree damage where possible.

#### c. List threatened and endangered species known to be on or near the site.

None known. The DNR Natural Heritage program indicates no known rare, threatened, or endangered plant species in the Township, Range, and Section where the project site is located. The location of the bridge embankments where construction will occur does not provide known or suitable habitat for any state-listed threatened or endangered plant species. No sensitive plant species were observed during the field survey in January 2019.

# d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

All areas of vegetation removal or temporary soil disturbance in wetlands and wetland buffer areas will be graded to restore preconstruction contours and seeded with a native seed mix.

Project effects on wetland and riparian habitat will be minimized by landscaping Unnamed Creek's available terrace within the County's ROW (outside of a 10-foot sight buffer from the edge of pavement) using short native shrubs. Native trees cannot be planted due to sight distance issues stemming from a road curve to the east; however, short native shrubs will be planted to provide habitat, shade, and a buffer from road traffic along the north end of the widened roadway. The Unnamed Creek channel will be seeded with a native erosion control grass seed mix. Figure 3, Riparian Habitat Impact Map, depicts proposed planting areas.

#### e. List all noxious weeds and invasive species known to be on or near the site.

Himalayan blackberry (*Rubus armeniacus*), English ivy (*Hedera helix*), and reed canarygrass (*Phalaris arundinacea*) are predominant on streambanks at the site. English hawthorne (*Crataegus monogyna*) is present in the overstory canopy near the project.

#### 5. Animals

# a. <u>List</u> any birds and <u>other</u> animals which have been observed on or near the site or are known to be on or near the site.

### Examples include:

birds: **hawk**, heron, eagle, **songbirds**, other: mammals: **deer**, bear, elk, beaver, other:

fish: bass, **salmon**, **trout**, herring, shellfish, other \_\_\_\_

The southwestern Washington/lower Columbia River Distinct Population Segment (DPS) of coastal cutthroat trout is likely present within the study area (WDFW 2019a). This DPS is considered a federal species of concern but is not protected under the federal or state ESA. The life history of coastal cutthroat trout is one of the most complex of any Pacific salmonid. Cutthroat trout may be resident, anadromous, or migrate within freshwater systems. The life history type present in the study area includes nonmigratory or freshwater migratory coastal cutthroat trout. These fish are generally found in small streams and headwater tributaries. Anadromous cutthroat trout cannot access the study area due to the downstream fish passage barrier. Stream flows, substrate, and other habitat conditions within the study area appear suitable to support spawning, rearing, and migration habitat for cutthroat trout.

### b. List any threatened and endangered species known to be on or near the site.

Federally protected terrestrial and freshwater species were evaluated by using the USFWS IPaC system online (USFWS 2019) to generate a site-specific trust resources list (Table 4). Critical habitat has been designated for streaked horned lark (*Eremophila alpestris strigata*), Oregon spotted frog (*Rana pretiosa*), and bull trout (*Salvelinus confluentus*), and proposed for yellow-billed cuckoo (*Coccyzus americanus*). However, none of these designations include the study area. Critical habitat has not been designated or proposed for gray wolf (*Canis lupus*). The resource list did not list any migratory bird species that could be present in the vicinity of the study area.

**Table 4. USFWS Federally Listed Species in Site Vicinity** 

Species	Federal Status	State Status	Potential Habitat in Study Area
Gray wolf (Canis lupus)	Endangered	Endangered	No. Nearest known wolf packs in Washington have been documented north of Cle Elum. Wolf populations generally limited to remote, relatively unpopulated areas.
Streaked horned lark (Eremophila alpestris strigata)	Threatened	Endangered	No. Require large expanses of bare or sparsely vegetated land for foraging and nesting. These habitats are not present in the study area.

Species	Federal Status	State Status	Potential Habitat in Study Area
Yellow-billed cuckoo (Coccyzus americanus)	Threatened	Endangered	Potential, but unlikely. Prefers large contiguous riparian zones with cottonwoods and willows. May also nest in fir woodlands and brushy hillsides. Riparian habitat within the study area contains willow and alder but is very narrow and fragmented.
Bull trout (Salvelinus confluentus)	Threatened	Candidate	No. Not known to occur in Fifth Plain Creek or Lacamas subwatershed. Downstream fish passage barrier prevents access to study area.
Oregon spotted frog (Rana pretiosa)	Threatened	Endangered	No. Existing populations occur in large shallow wetland systems associated with a stream network. Although a few wetlands were documented in the study area, they are not of sufficient type or size to provide suitable spotted frog habitat.

No federally listed fish species are known to occur near the site. Fish passage for anadromous salmonids is blocked downstream by a natural high-gradient system in Lacamas Creek (downstream from Lacamas Lake [WDFW 2019a, b]). Two dam structures that impound Lacamas Lake further prevent the opportunity for anadromous fish to migrate into the study area and upper watershed.

#### c. Is the site part of a migration route? If so, explain.

The project site is located within the Pacific Flyway, which stretches almost the entire width from the Pacific Ocean to the Cascade Range foothills. The proposed project will not preclude the use of known migratory bird routes through the area.

#### d. Proposed measures to preserve or enhance wildlife, if any:

The new bridge design (wider opening, scour protection) will result in improved sediment transport and channel stability and increased channel complexity. Connecting Unnamed Creek and Fifth Plain Creek will provide off-channel habitat, which traps sediment and provides flood storage, rearing habitat for fish, and refuge from high-flow events. Up to 1.5 feet of rounded fish-friendly gravels will be placed in the Fifth Plain Creek channel within the project area to enhance in-stream fish habitat. Additionally, revegetation measures under Item B.4.d will limit impacts to and enhance habitat for wildlife. All of these improvements will benefit habitat for wildlife at the site.

### e. List any invasive animal species known to be on or near the site.

No invasive animal species are known to occur at or near the site.

#### 6. Energy and Natural Resources

# a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

The completed project will not have any energy needs. Lighting is not part of the project design.

# b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The proposed project will not shade adjacent properties or otherwise affect the potential use of solar energy by adjacent properties.

# c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

The proposed project does not include plans for energy conservation features, and no energy will be generated by the completed project.

#### 7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
  - 1) Describe any known or possible contamination at the site from present or past uses.

No known or possible contamination from present or past uses is present on the project site.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

No hazardous chemicals/conditions are on the project site. No pipelines within the vicinity will affect project development and design.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

There are no toxic or hazardous chemicals that might be produced during the development or construction of the project. Staging areas (used for equipment storage, vehicle storage, fueling, servicing, and hazardous material storage) will be established on the closed road in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state. Project operations will not produce any toxic or hazardous chemicals.

4) Describe special emergency services that might be required.

No new emergency services will be required. If fire, ambulance, and emergency medical services are required, these services are already provided in Clark County.

5) Proposed measures to reduce or control environmental health hazards, if any:

Industry-standard, established safe work practices and policies will be followed to reduce or control environmental health hazards. Industry-standard health, safety, and environmental management policies will be implemented and followed to reduce hazards.

#### b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Some traffic noise is present in the project area. However, traffic noise is not expected to

affect operation of the completed project.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Construction activity will contribute to an increase in overall noise levels in the project vicinity during project construction. Typical construction noise levels range from 70 to 90 A-weighted decibels at 50 feet from the source of activity. However, construction noise levels will vary by construction activity and would be considered temporary or short term.

Long-term noise sources associated with the completed project are limited to vehicular traffic on the bridge. Vehicular traffic noise is not expected to increase from current noise levels.

3) Proposed measures to reduce or control noise impacts, if any:

Construction of the project will comply with Clark County noise ordinance regulations.

### 8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Historical imagery dating back to 1990 reveal that the project area, which includes Northeast Davis Road at Fifth Plain Creek and surrounding properties, have been used for essentially the same purposes for the past 30 years: transportation, rural residential, and small-scale agriculture/pasture. The proposed project will not result in permanent effects on current land use.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

The project area is zoned Rural (R-5), and several adjacent properties appear to have been used historically for agricultural purposes. Fields are currently fallow, and no active grazing was observed during site visits.

No agricultural or forest land of long-term commercial significance will be converted to other use, as no resource lands have been designated in the project vicinity. No land in farmland or forest land tax status will be converted, as no lands in the project vicinity have those designations.

c. Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

The proposal will not affect or be affected by surrounding working farm or forest land normal business operations.

### d. Describe any structures on the site.

Constructed in 1935 and rebuilt in 1953, the Davis Bridge (No. 232) is a concrete slab and stringer (beam) bridge. At the bridge's north side, a 24-inch-diameter metal culvert passes through a rock retaining wall and drains at the creek's east bank. The culvert is perched above the surface of Fifth Plain Creek.

The Davis Bridge superstructure consists of a concrete deck, longitudinal beams, and slab. The single-span deck measures approximately 26 feet long and 20 feet wide. The six beams are precast board form concrete measuring 16 inches high by 9 inches wide, with chamfered corners. They are spaced about 3 feet apart. The concrete slab measures approximately 16 inches thick.

The substructure consists of concrete abutments with wing walls. The abutments materials appear to date from two distinct periods. They consist of the original 1935 construction at the base with the distinct 1953 construction on top and set back slightly. The original base, approximately 14 inches tall, includes the original wing walls that measure about 5 ½ feet in width and 14 inches in height. This lower section of the abutments displays larger aggregate and more extensive deterioration. The upper sections, exhibit board form construction and measure approximately 3 feet high under the concrete slab. The wing walls measure approximately 5 feet high and 6 ½ feet wide. Remnants of board forms are secured against each 1935 abutment, although they do not appear to have been used for the 1935 construction. Metal W-beam guardrails extending along the north and south sides of the bridge are mounted on 29-inch-tall, 7 x 7-inch wooden posts at each corner and five steel I-beam posts. Each I-beam is 34 inches high and 4 inches wide and bolted to the concrete slab. Two horizontal metal pipes run the length of the bridge's southern side. The larger pipe with an approximately 4-inch diameter is mounted just below the guard rail and gradually returns beneath the roadway before reaching the wooden post on each end. The smaller pipe with an approximately 2 ½-inch diameter runs underneath the bridge and along each abutment before gradually descending to ground level. The function of these pipes is not abundantly clear.

A field investigation and review of the 1953 architectural drawings indicate that the original metal W-beam guardrails were replaced on an unknown date with longer guardrails extending fully between both abutments. Like the original guardrails, the existing W-beam guardrails are mounted on evenly spaced steel I-beam posts. The alteration to the guardrails involved installation of wooden posts to support the extension of the guardrails to the abutments. The two metal pipes on the bridge's south side appear to have been added since the original construction on unknown dates. The southeast corner of the slab shows signs of settling. The multiple layers of concrete indicate that Northeast Davis Road and the deck have been

repayed numerous times since 1953.

## e. Will any structures be demolished? If so, what?

The existing bridge structure and the culvert outfall for the seasonal, roadside stream will be demolished.

### f. What is the current zoning classification of the site?

Rural-5

#### g. What is the current comprehensive plan designation of the site?

Rural-5

### h. If applicable, what is the current shoreline master program designation of the site?

Not applicable. Fifth Plain Creek at the Davis Bridge crossing is outside the jurisdiction of the current shoreline master program. Shoreline jurisdiction on Fifth Plain Creek starts from its 20 cubic feet per second (cfs) point (Sec. 6, T2N, R3E) and extends downstream to its confluence with Lacamas Creek (Clark County Code [CCC] Chapter 40.460.210). The project site is located upstream of the 20 cfs point.

# i. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Fifth Plain Creek; Unnamed Stream; Wetlands A, C, D, and E; and associated protective buffers documented in the Wetland Delineation Report (AECOM 2020b) are regulated under Clark County's Critical Areas Ordinances for habitat conservation (CCC Chapter 40.440) and wetland protection (CCC Chapter 40.450). Because Wetland B is within the bank-full width of Unnamed Creek, it is an exempted wetland and not subject to wetland protections provided under CCC Chapter 40.450 (CCC Chapter 40.450.010.C.2.c).

### j. Approximately how many people would reside or work in the completed project?

No people will reside or work in the completed project.

#### k. Approximately how many people would the completed project displace?

No businesses, residences, or short-term/temporary housing will be displaced as a result of the proposed project.

#### 1. Proposed measures to avoid or reduce displacement impacts, if any:

No measures are proposed as no displacements will occur.

# m. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

No measures are proposed, as the proposed project is compatible with Clark County's bridge program, which requires regular inspection and maintenance of county-owned bridges. Davis Bridge is currently listed as structurally deficient and must be replaced to ensure structural stability and continued functionality.

# n. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

No measures are proposed, as there are no impacts to agricultural and forest lands of long-term commercial significance from the proposed project.

### 9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

No housing units will be provided.

# b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No housing units will be eliminated.

### c. Proposed measures to reduce or control housing impacts, if any:

No housing impacts will occur with the proposed project.

#### 10. Aesthetics

# a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Beam guardrails will be the tallest aspect of the bridge structure. These features will be less than 3 feet tall.

#### b. What views in the immediate vicinity would be altered or obstructed?

The proposed project will not alter or obstruct any existing views.

### c. Proposed measures to reduce or control aesthetic impacts, if any:

The proposed project will have no adverse aesthetic impacts; therefore, no measures to reduce or control impacts are proposed.

#### 11. Light and Glare

# a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The completed project will not produce light trespass or glare.

#### b. Could light or glare from the finished project be a safety hazard or interfere with views?

The completed project will not create light or glare.

## c. What existing off-site sources of light or glare may affect your proposal?

No existing sources of light or glare will affect the proposed project.

### d. Proposed measures to reduce or control light and glare impacts, if any:

No measures are proposed.

#### 12. Recreation

#### a. What designated and informal recreational opportunities are in the immediate vicinity?

There are no designated or informal recreation opportunities in the immediate vicinity of the proposed project.

Davis Road/119th Street is classified as a "Shared Roadway/Difficult Connection lower traffic street with sight distance limitations and higher speeds" for bike travel.

### b. Would the proposed project displace any existing recreational uses? If so, describe.

The proposed project will not displace any existing recreational uses.

# c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

No measures are proposed.

#### 13. Historic and Cultural Preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

The bridge structure (described in B.8.c) is over 45 years old. AECOM recommends that the historic bridge is not significant under any of the National Register of Historic Places (NRHP) criteria and therefore not eligible for the NRHP based on lack of significant historical association and information potential. A Cultural Resources Assessment Report (AECOM 2020e) prepared for the bridge replacement project has been submitted to the DAHP for review.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

The DAHP statewide predictive model shows the majority of the project area as a having a very high-to-high risk to contain archaeological resources. However, no landmarks, features, or other evidence of Indian or historic use or occupation were observed during the cultural resources inventory. The records search conducted for the inventory found that the project area has not been surveyed for cultural resources, and no previously recorded precontact or historic-era archaeological resources are present.

Eight cultural resource investigations have been conducted within 1 mile of the project area. The majority of these have been small-scale surveys conducted in compliance with local cultural resource protection ordinances (e.g., Clark County) and have generally yielded negative results. One large-scale survey of the proposed route of a natural gas pipeline was conducted in the vicinity of the project area. The survey identified several archaeological sites; however, none of the sites identified in the study are within 1 mile of the current Project (Lloyd-Jones et al. 2010).

One precontact archaeological site has been documented within 1 mile of the project area. The site was identified during the survey of a Pacific Northwest Pipeline in the late 1950s and consists of a low-density precontact lithic scatter (Tuohy and Bryan 1959). The site was found in a plowed field on a hill overlooking Fifth Plain Creek. Material observed on the ground surface consisted of four flaked or pecked pebble tools and a few pieces of flaking debris (Tuohy and Bryan 1959:28). The archaeological site is currently listed on the NRHP.

In summary, few areas within the vicnity of the Project area have been inventoried, and only one site has been documented within a mile of the project site. However, precontact use of the region is well documented. Isolated tools, lithic scatters, and an burial site have been found in the broader vicinity (3 to 5 miles away), along nearby waterways such as Fifth Plain Creek,

Shanghai Creek, and Lacamas Creek, and highlight intensive use of the area.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

AECOM archaeologists conducted a cultural resources inventory to identify cultural resources; document, analyze, and interpret the identified resources within a regional context; and to provide NRHP eligibility recommendations for identified resources based on the results of the inventory. The results of the inventory are presented in the Cultural Resources Assessment (AECOM 2020e).

The following methods were used to assess potential impacts to cultural and historic resources on or near the project site:

- Archaeologists evaluated the environmental and cultural setting of the project to determine historic use of the area.
- A records search was conducted via DAHP's online WISAARD database, a restrictedaccess, searchable GIS database depicting locations of previously recorded archaeological sites, cultural resource surveys conducted after 1995, historic register properties, and cemeteries.
- An intensive-level pedestrian survey was conducted at the project area to identify
  archaeological sites, historic properties, and other cultural resources. The 3.1-acre Area of
  Potential Effects (APE) was surveyed using 5- to 10-meter transect intervals. Along each
  transect, the ground surface was examined for artifacts, features, or other evidence of
  cultural use.
- Subsurface discovery probing was conducted to supplement the pedestrian survey. Subsurface probes were placed at 20-meter intervals. All probes were excavated as 40-centimeter-diameter cylindrical holes, in 10-centimeter arbitrary levels. Data collected for each probe included the maximum depth of the probe, soil stratigraphy, sediment descriptions, extent of disturbance, depth to impenetrable layers, and presence/absence of cultural material. No artifacts were collected. Shovel probes were backfilled and the surface was restored to its original state as much as practicable.
- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

AECOM recommends that the project will have no effect on historic properties within the APE. Pending DAHP concurrence with this recommendation, AECOM has no further recommendations for historic built resources or archaeological investigations for the project.

However, as part of the pre-construction kickoff meeting, Clark County should provide construction worker training in recognition of cultural resources and in procedures to follow in the event cultural resources are unexpectedly encountered during construction, as outlined below.

Should archaeological materials (e.g., bones, shell, stone tools, beads, hearths, etc.) be observed during project activities, all work in the immediate vicinity must stop. The person making the observation must immediately contact Clark County [564-397-4227], who will contact a professional archaeologist, DAHP, and the affected tribe(s) in order to help assess the situation and determine how to preserve the resource(s). Compliance with all applicable laws pertaining to archaeological resources (Revised Code of Washington [RCW] 27.53 and 27.44, and Washington Administrative Code 25-48) is required. Failure to comply with this requirement could constitute a Class C Felony.

In the event human remains are encountered, the person making the discovery must immediately stop work and notify local law enforcement. Clark County shall ensure implementation of RCWs 68.50.645. 27.44.055, and 68.60.055, Inadvertent Discovery of Human Skeletal Remains on Non-Federal and Non-Tribal Land in the State of Washington.

### 14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

The site is accessible via public streets. Northeast Davis Road/Northeast 109th Street serves the site.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The site is not currently served by public transit. The site is 2.9 miles from the nearest bus route (Ward Road and 76th Street, bus route 72, stop #3).

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

The completed project will not add or remove any parking spots.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

The project is a bridge replacement on a public road. Replacement of the bridge will require widening of the road approaches to connect the existing road to the new bridge and installation of new guard rails. The project does not require any new, or improvements to,

pedestrian, bicycle, or state transportation facilities.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The project will not occur in the immediate vicinity of water, rail, or air transportation.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

The completed project will not generate any vehicular trips.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

Davis Road will be closed at the bridge crossing for the duration of the project (approximately 4 months); therefore, local traffic impacts are anticipated. The bridge has an average daily traffic count of 2,766. During construction activities, vehicles will be detoured around the project site. The detour route is short (approximately 3 miles) and easy to navigate. Therefore, the project will not interfere with, affect, or be affected by the movement of agricultural and forest products.

h. Proposed measures to reduce or control transportation impacts, if any:

The County will develop a public involvement plan to address the extended bridge closure. Significant notification will occur to mitigate the direct impact to residents and the travelling public. The County will post and maintain detour signage for the duration of the bridge closure. Coordination with emergency response, postal service, utilities, waste service providers, and school districts will occur prior to bridge closure.

#### 15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

The proposed project will not result in an increased need for public services. There will be no increase in the need for fire and emergency medical services provided by Clark County over what is normally used during the turnaround window.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Emergency response, postal service, utilities, waste service providers, and school districts will be notified prior to bridge closure to coordinate detour routing, as needed. No other mitigation measures are proposed.

#### 16. Utilities

a. Circle utilities currently available at the site:

electricity natural gas, water, refuse service, telephone sanitary sewer, septic system,	
otherstorm sewer	
Existing utilities (electrical, telephone) that span the bridge will be disconnected prior to bridge	d

Existing utilities (electrical, telephone) that span the bridge will be disconnected prior to bridge demolition and reinstalled once construction is complete. Two electrical utility poles on the south side of Northeast Davis Road will be relocated. The storm sewer system, consisting of drainage ditches on both sides of Northeast Davis Road, will be reconstructed following road construction.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

No new utilities are proposed for the project. Existing utilities will be restored following construction

#### References

- AECOM. 2020a. Habitat Evaluation Report. Davis Road Bridge Replacement Project. Prepared for Clark County. January.
- AECOM. 2020b. Wetland Delineation Report. Davis Road Bridge Replacement Project. Prepared for Clark County. March.
- AECOM. 2020c. No Effect Letter. Davis Road Bridge Replacement Project. Prepared for Clark County. April.
- AECOM. 2020d. Hydraulic and Geomorphic Basis of Design Memo. Davis Road Bridge Replacement Project. Prepared for Clark County. April.
- AECOM. 2020e. Cultural Resources Assessment Report. Davis Road Bridge Replacement Project. Prepared for Clark County. May.
- AECOM. 2020f. Bank Use Plan. Davis Road Bridge Replacement Project. Prepared for Clark County. April.
- AECOM. 2020g. Joint Aquatic Resources Permit Application. Prepared for Clark County. June.
- Clark County. 2015. Clark County Stormwater Manual. Available from: https://www.clark.wa.gov/public-works/stormwater-code-and-manual
- Lloyd-Jones, Jeff, Sara Davis, Jonathan Held, and Terry Ozbun. 2010. Cultural Resource Survey of the Northwest Pipeline GP Blue Bridge Pipeline Project. On file, Washington Department of Archaeology and Historic Preservation.
- Tuohy, Donald, and Alan Bryan. 1959. Southwestern Washington Archaeology: An Appraisal. Tebiwa 2:27-58.
- USFWS (U.S. Fish and Wildlife Service). 2019. IPaC Information, Planning, and Conservation System Initial Project Scoping Trust Resources List. Available from: <a href="http://ecos.fws.gov/ipac/">http://ecos.fws.gov/ipac/</a>. Accessed June 25, 2019.
- WDFW (Washington Department of Fish and Wildlife). 2019a. Priority Habitats and Species on the Web. Available from: http://apps.wdfw.wa.gov/phsontheweb/. Accessed October 28, 2019.
- WDFW. 2019b. SalmonScape. Available from: http://apps.wdfw.wa.gov/salmonscape/. Accessed November 25, 2019.

# C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _	Jennifer Taylor	
Name of signee	Jennifer Taylor	
Position and Agency/Organization		Environmental Coordinator
Date Submitted:	7/20/2020	